Master of Science
Actuarial and Financial Engineering

Why University of Tartu?

• UT is ranked in the **TOP 2% of the world’s best universities** (QS World University Rankings 2016/2017);
• The oldest and most prestigious university in Estonia founded in 1632;
• International community: more than 1000 international students from over 90 countries;
• Exchange opportunities offered by partner universities in numerous countries and student exchange programmes such as ISEP and Erasmus+;
• Safe, modern and innovative study environment: international students are 89% satisfied with their experience in Estonia (I-Graduate ISB);
• More than **70 years of experience in teaching** business and economics;
• Successful and globally competitive graduates: our graduates have established successful companies, such as Fortumo, Tallink, Transferwise, Skype and Nortal.

NB! This publication is meant for informational purposes only. Please refer to the university website for the latest official information.

Send us your question: ut.ee/ask

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Master of Science
Actuarial and Financial Engineering

MSc in Actuarial and Financial Engineering prepares specialists for the financial sector, banking and insurance industries in quantitative methods of risk assessment and hedging, providing knowledge and skills in two major areas – financial engineering and insurance mathematics. Students learn about the principles and methods of life and non-life insurance, premiums and reserves, pricing and hedging of options, financial risk management, etc. Actuarial and Financial Engineering offered by the University of Tartu is one of a kind in the region. It meets EU educational standards in actuarial mathematics. Graduates are very competitive on national and international job market as analysts, actuaries and risk engineers. The programme provides knowledge, practical skills and competence needed to succeed in careers at banks, insurance companies, consulting, financial utilities and financial supervisory authorities.

Language of instruction: English
Duration of the programme: 2 years
Location: Tartu, Estonia

Curriculum structure
Total 120 ECTS

- Preparatory module (21 ECTS)
  - Mathematical Statistics
  - Stochastic Models
  - Generalized Linear Models
  - Time Series Analysis
- Speciality module (33 ECTS)
  - Computational Finance
  - Life Insurance Mathematics
  - Martingales
  - Models of Financial Mathematics
  - Non-Life Insurance Mathematics
  - Risk Theory
  - Simulation Methods in Financial Mathematics
- Elective module (30 ECTS)
  - Master Seminar
  - Professional Practice
  - Distributions in Financial Mathematics
  - Survival Models
  - Machine Learning
  - Estonian for Beginners
  - Courses from Faculty of Economics
- Optional courses (6 ECTS)
- Master’s thesis (30 ECTS)

General admission requirements
- Bachelor’s degree or equivalent;
- Applicants are required to have passed prerequisite subjects in the following areas: mathematics, incl. calculus, probability, statistics (24 ECTS) and computer science (6 ECTS).

Programme contact:
Meelis Käärik
Programme Director
meelis.kaarik@ut.ee
ut.ee/finmath

Application process:
1) Submit an online application with required documents (link available on the programme’s website);
2) Mail the documents after being admitted or when requested by the university.

Documents to be submitted:
- Online application;
- Motivation letter;
- Official copy of the Bachelor’s diploma or its equivalent and Diploma Supplement (transcript/mark sheet) in the original language;*
- Official translation of the Bachelor’s diploma and Diploma Supplement (transcript/mark sheet) into English, translation certified;
- Proof of English language proficiency (ut.ee/requirements, e.g. TOEFL iBT 75, IELTS 5.5);
- Copy of the passport page stating the applicant’s personal details.

*All copies of educational documents (diplomas and diploma supplements/academic transcripts) must be officially certified. Certified copies should bear an original signature and seal of the authority certifying that these are true copies of the original. The documents can be certified: 1) by an authorized official of the issuing institution; 2) by a notary; 3) with an Apostille attached. The University does not accept simple copies of already certified copies.

Application deadline:
March 15

Tuition fee & scholarships
€3400/year

Top-ranked applicants receive tuition-waiver scholarships
ut.ee/scholarships

International Recruitment
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ADDRESS FOR ENQUIRIES